

Amendments to the Claims

1. **(Previously Presented)** In a mobile telecommunications system, a method of indicating the length of a data payload to be transported in a packet, the method comprising:

- a. assessing the length of a data section to determine the appropriate units, from a plurality of possible units, in which the length should be expressed;
- b. setting a granularity field to define said appropriate units in which the length of the data section is to be indicated in a data length indicator field; and
- c. setting the length indicator field to indicate the data length.

2. **(Original)** A method according to claim 1, wherein the appropriate units are determined to be the largest units in which the length can precisely be expressed.

3. **(Original)** A method according to claim 1, wherein the units are bits and octets, and the granularity field is one bit in length to indicate length in bits or octets.

4. **(Previously Presented)** A method according to claim 1, wherein the granularity field is located in the packet header adjacent the length indicator field.

5. **(Previously Presented)** A method according to claim 1, wherein a packet is assessed to determine whether it contains more than one payload unit, and each payload unit is assessed to determine said appropriate units.

6. **(Previously Presented)** A method according to claim 5, wherein the granularity field is set according to the units of the payload unit which is be expressed in the smallest units.

7. **(Original)** A method according to claim 6, wherein the granularity field is set according to larger units of the possible units, if all the payload units can be expressed in such larger units.

8. **(Previously Presented)** In a mobile telecommunications system, apparatus for providing an indication of the length of a data payload to be transported in a packet, the apparatus comprising:

- a. means for assessing said length of data to determine appropriate units, from a plurality of possible units, in which the length should be expressed;
- b. means for setting a granularity field to define said appropriate units in which said length of data is to be indicated in a data length indicator field; and
- c. means for setting the length indicator field to indicate the data length.

9. **(Original)** Apparatus according to claim 8, wherein the assessing means is arranged to determine the appropriate units as the largest units in which the length can precisely be expressed.

10. **(Original)** Apparatus according to claim 8, wherein the assessing means is operative to determine whether a packet contains more than one payload unit, and for assessing each such payload unit to determine said appropriate units.

11. **(Previously Presented)** Apparatus according to claim 10, operative to select the appropriate units according to the units of the payload unit which is to be expressed in the smallest units.

12. **(Original)** Apparatus according to claim 10, operative to select larger units of the possible units, if all the payload units can be expressed in such larger units.

13. **(Cancelled)**

14. **(Previously Presented)** A packet according to claim 16, wherein the granularity field is one bit in length to indicate length in bits or octets.

15. **(Previously Presented)** A packet according to claim 16, wherein the granularity field is located in the packet header adjacent the length indicator field.

16. **(Previously Presented)** A mobile telecommunications data packet comprising a packet header and payload data, the packet header comprising a granularity field which defines units in which length of the payload data is to be indicated and a length indicator field indicating the length of the payload data in units defined by the granularity field.

17. **(Currently Amended)** In a mobile telecommunications system, a method of indicating the length of a data payload to be transported in a packet, the method comprising:

a. assessing the length of a data section to determine the appropriate units, from a plurality of possible units, in which the length should be expressed;

b. setting a granularity field to define said appropriate units in which the length of the data section is to be indicated in a data length indicator field; and

c. setting the length indicator field to indicate the data length;

wherein the a packet is assessed to determine whether it contains more than one payload unit, and each payload unit is assessed to determine said appropriate units;

wherein the granularity field is set according to the units of the payload unit which is to be expressed in the smallest units, unless the payload units can be expressed in larger units of the possible units whereupon the granularity field is set according to such larger units.

18. **(Currently Amended)** In a mobile telecommunications system, apparatus for providing an indication of the length of a data payload to be transported in a packet, the apparatus comprising:

a. means for assessing said length of data to determine appropriate units, from a plurality of possible units, in which the length should be expressed;

b. means for setting a granularity field to define said appropriate units in which said length of data is to be indicated in a data length indicator field; and

c. means for setting the length indicator field to indicate the data length;

wherein the assessing means is operative to determine whether thea packet contains more than one payload unit, and for assessing each such payload unit to determine said appropriate units;

wherein the apparatus is operative to select the appropriate units according to the units of the payload unit which is to be expressed in the smallest units, unless the payload units can be expressed in larger units of the possible units whereupon the granularity field is set according to such larger units.

REMARKS

The present application stands with claims 1-6, 8-11, and 14-16 rejected under 35 U.S.C. §103(a) as being unpatentable over the cited Hippelainen reference in view of the cited Perlman patent and “well-established teachings in the art.” Previous allowance of claims 1-6 and 8-11 has been withdrawn. The Examiner has objected to claims 7 and 12 as being dependent on a rejected base claim, but indicated that such claims would be allowable if rewritten in independent form. The Examiner has objected to informalities in claims 17 and 18 but indicated those claims would be allowable if appropriately rewritten. For the reasons below, the claims presently in the application are believed to be allowable.

Independent Claims 17 and 18

The informalities raised in these claims have been addressed by amendments as suggested by the Examiner.

Independent Claims 1, 8 and 16

As regards these independent claims 1, 8 and 16, Applicant's Comments on Examiner's Response to Arguments are first provided, followed by further arguments along the lines previously presented but, we respectfully submit, are persuasive in particular in the light of the Applicant's comments on the Examiner's Response to Arguments.

(a) Applicant's Comments on Examiner's Response to Arguments

The Examiner is looking at the invention according to claims 1, 8 and 16 using unjustified ex post facto reasoning as regards inventiveness.

Hippelainen does not disclose a granularity field that is sent along with a length indicator. Hippelainen merely teaches a length indicator field (L) and a binary packet type field (C\S). Although the value in the packet type field (L) might in practice limit the possible lengths which might be indicated in the packet length field (L), this is not the same as referring to a granularity field in order to

determine the units in which a length indicated on the length indicator field is expressed.

Hippenlainen (see e.g. its abstract) describes a method where the length of the transmitted data blocks is signaled by using a look up table that defines the correspondence between the transmitted 'code values' (e.g. 0, 1, 2,..., N) and the actual real values block length values (e.g. 1bit, 77bits, 19bits,...). This method has the disadvantage of assuming that all the possible block length values are known before the start of the transmission. This is not always possible.

On the contrary, the present invention does not need this knowledge. The present invention concerns a granularity field that is sent along with a length indicator and the data payload. The granularity field provides the information of the unit used for the length indication (e.g. bit, byte or kbyte). It allows any value within the range of the length indicator, not just a predefined subset as described in Hippenlainen.

Perlman is no more relevant than Hippenlainen. Perlman merely teaches a 2-byte packet length field and a single byte packet type field, see Perlman column 6 lines 19 and 20. The "packet length field" of Perlman (see its col.6 lines 19 to 20) is analogous to the "length code" of Hippenlainen (see its page 12 lines 11 to 16). The single byte packet type field of Perlman (see its col. 6 lines 19 to 20) is analogous to the C/S bit of Hippenlainen (see its page 12 lines 11 to 16). Although in Perlman the value in the packet type field might in practice limit the possible length which might be indicated in the packet length field, this is not the same as referring to a second field (granularity field of the present invention) to determine the units in which the length in the first field (the length indicator field) is expressed.

It follows that Hippenlainen in view of Perlman or any other combination of the cited art does not teach or suggest claims 1, 8 and 16.

(b) Arguments along the lines previously presented, but believed persuasive, in particular in view of (a) above

With regard to the rejections of independent claims 1, 8 and 16 under 35 U.S.C. §103(a), it is respectfully submitted that the Examiner is incorrect regarding the teachings of the Perlman patent. Perlman in column 6, line 19 and reference numeral 404 in FIG. 4 refers to a 2-byte packet length field. One skilled in the art would look to that field to give the length of the packet in appropriate units. One skilled in the art would naturally assume those units to be constant, and there is nothing in Perlman to disabuse him of this view. The Examiner at some key points in his Detailed Action appears to accept this. For example, the Examiner states on line 24 of his numbered page 4: "note that length field 404 specifies the length of packet in bytes."

The packet type field 408 would similarly be understood by one skilled in the art to be a straightforward indication of packet type. Packets of different types can be of the same length. There is no teaching that units of the value presented in the length field 404 would be altered depending on packet type (as indicated in field 408).

It follows that having a packet length field in which the units in which the length is given is adjustable, and a separate field in which the units are indicated, runs directly contrary to the teaching of Perlman such that one skilled in the art contemplating Hippelainen, Perlman, Hippelainen in view of Perlman, or Hippelainen in view of Perlman in view of "well established teaching in the art", which the Examiner has failed to identify, could not arrive at the present claimed invention.

Applicants believe that the Examiner's initial decision that the independent claims were allowable is correct. In view of the above, the Examiner should see that the cited prior art does not give rise to a valid objection under 35 U.S.C. §103(a).